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STATE OF MONTANA

Ninth Annual Report

OF THE

Industrial Accident Board

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For the Twelve Months Ending June 30th

1924

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SAFETY



FIRST

Workmen's Compensation Act

In Effect July 1st, 1915, as to  
Compensation Provisions

MEMBERS OF THE BOARD

JEROME G. LOCKE, Chairman      GEO. P. PORTER, State Auditor  
CHESTER C. DAVIS, Commissioner of Labor

BUREAUS AND BUREAU HEADS

Bureau of Claims.....	W. B. McLaughlin.....	Secretary of Board
Bureau of Accounts.....	T. C. Patrick.....	Chief Accountant
Bureau of Safety.....	Duncan McRae.....	Clerk of Bureau
Bureau of Rehabilitation.....	Leif Fredericks.....	Rehabilitation Agent

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INDEPENDENT PUBLISHING CO.  
HELENA, MONTANA



LETTER OF TRANSMITTAL.

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Helena, Montana,  
September 15, 1924.

To His Excellency, Jos. M. Dixon,  
Governor of the State of Montana.

Sir:

Pursuant to Section 2969, Revised Codes Montana, 1921, we have the honor to transmit herewith our Ninth Annual Report, covering the administration of the Workmen's Compensation Act, Safety Inspection Laws, Boiler Inspection Laws, Stationary Engineers' License Laws, Quartz Mine Inspection Laws, Coal Mine Inspection Laws, Alien and Illiterate Employees' Act, and the law pertaining to Industrial Rehabilitation, by the Industrial Accident Board for the twelve months ending June 30th, 1924. For the reasons set forth in the Foreword, the report for the year is brief. In the interest of economy, information and data has been condensed to the greatest possible degree.

Respectfully submitted,

INDUSTRIAL ACCIDENT BOARD,

JEROME G. LOCKE, Chairman.  
GEORGE P. PORTER.  
CHESTER C. DAVIS.

## SAFETY FIRST

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"Safety First"—how oft the cry we hear, yet disregard,  
Until with body crushed and maimed, or eyesight lost,  
Strikes home the lesson, cruel though it be and hard,  
Suffering and privation for the loved ones is, alas, but  
part the cost.

This Compensation Law is but a shift to make end meet  
And never can bring back, when lost, your former power,  
No artificial means for use or poor disguise, does aught  
but cheat,  
Makeshifts only, and reminds all of that one careless  
hour.

In mine or mill, in woods or on the highway,  
A thought in time, be neither undue rash nor hasty,  
Where'er you be, in factory, shop or nature's lonely  
byway,  
Be sure you're right, then go ahead with confidence and  
safety.

A moral here we aim to teach, avoid uncalled for hazard,  
Keep e'er in mind the risk incurred, the consequence so  
curst,  
For Prudence is a cautious boss and is its own reward,  
So follow it and preach it too—the motto "Safety First."

—Bitter Root Bill.



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# REPORT OF

## The Industrial Accident Board of the State of Montana

### FOREWORD.

Pursuant to statutory requirement that the Board shall, not later than the first day of October of each year, make a report to the Governor, covering the entire operations and proceedings for the preceding fiscal year, with such suggestions or recommendations as it may deem of value for public information and that a reasonable number shall be printed for general distribution, this report is compiled and printed.

During the past three years, the department has pursued the policy of condensing its annual report so as to give but an outline of the business transacted and a general survey of the various activities with which the department is concerned. The public generally will not read a long report filled with statistical data and comment on the detailed operations of a department. Moreover, the annual saving for printing and distribution by virtue of the policy of a condensed report has been about \$3,500.00 per year. It has been deemed advisable to pursue the same policy in the preparation of this report.

### ACTIVITIES OF THE BOARD.

The department of the Industrial Accident Board has been in existence nine years and was originally created for the purpose of administering the Workmen's Compensation Act and the Safety Inspection Laws which were embodied in the compensation code. Since then, by legislative enactment, many additional duties have been added, until the Board is now charged with the duty of administering the laws pertaining to safety of boilers, hazardous plants, quartz mines, coal mines and stationary engineers' license laws, steamboat inspection laws, the Alien and Illiterate Employees' Act, and by agreement with the State Board of Education, with all matters pertaining to Civilian Rehabilitation.

The activities and duties of the department have been divided into four bureaus, each in charge of a bureau chief. These have been designated as the Bureau of Claims, under W. B. McLaughlin, Secretary of the Board; the Bureau of Accounts, under T. C. Patrick, Chief Accountant; the Bureau of Safety, under Duncan McRae, Clerk of the Bureau; and the Bureau of Rehabilitation, under Lief Fredericks, Civilian Agent. An average of twenty employees is now required to handle the work in the various bureaus, inclusive of six inspectors in the field. Each bureau head handles and administers the detail work pertaining to the activities of his bureau, while the Board exercises general supervision and administrative control of all the bureaus and passes upon all questions which offer difficulty of solution or that have to do with the policy of the department. The work of each bureau will be covered under a separate head.

### BUREAU OF CLAIMS.

Under the Montana Workmen's Compensation Law, three plans for the handling of compensation payments and the making of compensation adjustments are provided.



Plan One provides that the employer may carry his own compensation insurance on the employees in his hire. To do this, he must satisfy the Board as to his solvency and financial responsibility. Under this plan, the employer makes payments to and adjustments with his employees direct, except in disputed cases where the Board takes jurisdiction and decrees the settlement. The Board, however, checks up and passes on all cases to make certain that proper settlement is made.

Plan Two provides that the employer may carry compensation insurance by filing a policy of coverage written by a recognized insurance company. Such policy and the company writing it must be approved by the Board. Under this plan, the insurance company makes payments and settlements on the same basis and in the same manner as they are made by the employers under Plan One, with the same reservation that the Board take jurisdiction in disputed cases. As in Plan One, all cases are checked by the Board to make sure that proper settlement is made.

Plan Three provides that the employer pay his compensation assessments into a trust fund administered by the state. The Board makes all disbursements from the fund direct to injured employees. This plan is the one that has been adopted by about sixty per cent of the employers of the state and is, undoubtedly, the most satisfactory plan to the majority of employers and to practically all employees. Likewise, it has proven to be the cheapest plan to employers.

The Bureau of Claims handles, checks up and makes decision in each accident case. Approximately twenty accidents occur every working day and in addition to that decisions must be made on many other matters, particularly in passing upon applications for compensation coverage and in decreeing who are and who are not independent contractors. About twenty-five cases of all kinds must be handled every working day, each one of which requires a decision.

The law provides that appeals may be taken from the decision of the Board to the courts. The department has been especially fortunate in that fewer than a dozen appeals have ever been taken. During the past three years, there have been but three appeals. In two of these, the Board was sustained and the other is still pending.

During the fiscal year 1924, 5789 accidents were reported. This is an increase of 650 over the year 1923 and of approximately 2400 over the year 1922. It is 327 above the annual average for the nine years since the Compensation Act became effective. The total amount paid in compensation for last year was \$522,045.75, which is approximately \$50,000.00 more than the total payments for the preceding year.

#### *Detailed Operations.*

A condensed statement of the number of cases under each of the three plans is given herein for the fiscal year ending June 30th, 1924. This table gives at a glance the total volume of business transacted through the Bureau of Claims during the past year and shows the classification under which the several cases are segregated. The second table gives identical data for the nine-year period that the Compensation Law has been effective.



## STATISTICAL STATEMENT FOR YEAR ENDING JUNE 30, 1924

	Plan 1	Plan 2	Plan 3	All Plans
Number employers under Act June 30, 1924	67	1,086	1,658	2,811
Number employees under Act June 30, 1924	24,544	11,849	16,789	53,182
Number fatal accidents	58	9	20	87
Number Permanent Total Disability	0	0	1	1
Number Permanent Partial Disability	31	16	23	70
Number Temporary Total Disability	2,928	1,328	1,375	5,631
Total accidents reported	3,017	1,353	1,419	5,789
Number accidents, no compensation paid	1,970	1,024	859	3,853
Disbursed for funeral expense	\$ 4,647.87	50.00	2,622.00	7,319.87
*Disbursed for medical expense	4,659.16	9,742.93	20,911.04	35,313.13
Disbursed for fatal accidents	110,717.84	19,623.94	32,745.56	163,087.34
Disbursed for Permanent Total Disability	12,450.50	450.00	10,432.55	24,333.05
Disbursed for Permanent Partial Disability	24,848.42	6,293.85	38,397.76	67,540.03
Disbursed for Temporary Total Disability	133,930.92	30,673.38	59,848.13	224,452.33
Total Compensation Payments	\$ 292,254.71	\$ 66,834.10	\$ 162,956.94	\$ 522,045.75
Lump Sum Payments fatal cases	\$ 85,675.80	\$ 6,814.00	\$ 5,841.10	\$ 98,330.90
Lump Sum Payments non-fatal cases	\$ 45,543.37	\$ 21,705.21	\$ 34,205.26	\$ 101,553.84

\*Note: Does not include medical care under hospital contracts.

## STATISTICAL STATEMENT FOR NINE YEAR PERIOD ENDING JUNE 30, 1924

	Plan 1	Plan 2	Plan 3	All Plans
Number fatal accidents	781	121	182	1084
Number Permanent Total Disability	16	6	11	33
Number Permanent Partial Disability	586	220	237	1043
Number Temporary Total Disability	28,838	11,198	7,282	47,318
Total accidents reported	30,221	11,545	7,712	49,478
Number accidents no compensation paid	21,710	8,600	4,002	34,312
Disbursed for funeral expense	\$ 56,338.95	\$ 6,976.50	\$ 15,889.25	\$ 79,204.70
*Disbursed for medical expense	65,912.95	117,122.43	113,459.86	296,495.24
Disbursed for fatal accidents	1,410,666.62	173,310.97	274,695.39	1,858,672.98
Disbursed for Permanent Total Disability	62,703.43	15,201.38	39,309.00	117,213.81
Disbursed for Permanent Partial Disability	286,605.16	76,594.03	193,341.53	556,540.72
Disbursed for Temporary Total Disability	796,037.70	210,873.57	360,894.90	1,367,806.17
Total Compensation Payments	\$ 2,678,264.81	\$ 600,078.88	\$ 997,589.93	\$ 4,275,933.62
Lump Sum Payments fatal cases	\$ 1,265,926.90	\$ 92,645.18	\$ 154,065.58	\$ 1,513,637.66
Lump Sum Payments non-fatal cases	\$ 270,550.22	\$ 67,373.27	\$ 190,076.96	\$ 528,000.75

\*Note: Does not include medical care under hospital contracts.

A comparative record of accidents for the nine years during which the law has been effective is given in the following tables:

## COMPARATIVE ACCIDENT RECORD FOR NINE YEARS

	Average 1st 5 yrs.	6th yr.	7th yr.	8th yr.	9th yr.
Fatal accidents.....	156.4	83	51	81	87
Totally disabled.....	4.4	3	3	6	1
Partially disabled.....	139.6	124	76	76	70
Paid disability compensation.....	1,634.8	1,299	1,059	1,493	1,778
Return work 14 days.....	4,331.8	2,349	2,179	3,473	3,853
Total accidents.....	6,267.0	3,858	3,368	5,129	5,789

## COMPARATIVE ACCIDENT PERCENTAGE FOR NINE YEARS

	Average 1st 5 yrs.	6th yr.	7th yr.	8th yr.	9th yr.
No. employers under Act.....	1,728	2,520	2,557	2,696	2,811
No. employees under Act.....	70,000	53,600	53,700	53,900	53,200
Per cent injured.....	8.80	7.00	6.00	9.50	10.88
Per cent compensable.....	2.33	2.81	2.20	2.87	3.30

## TIME AND WAGES LOST, CLASSIFIED AS TO INDUSTRY.

July 1, 1912 to June 30, 1923 (8 years).

## Plan No. One

All deaths and permanent total disability cases, 1029 in number, are omitted from these computations.

Industries	Days Lost	Amount
Coal Mines.....	32,210	\$ 187,151.35
Electric Plants, Railway and Water Works.....	8,803	37,614.16
Flour Mills and Grain Elevators.....	219	831.25
Laundries, Dye and Cleaning Works.....	182	433.10
Logging and Lumber Operations.....	24,532	104,618.13
Mining Not Coal.....	209,358	996,775.78
Smelters.....	45,786	194,312.83
Telephone and Telegraph.....	4,011	17,695.32
All others.....	1,900	9,064.72
Total.....	327,001	\$1,548,496.64

## Plan No. Two

Coal Mines.....	2,331	\$ 19,096.97
Contractors and Builders.....	11,519	51,218.04
Flour Mills and Grain Elevators.....	4,613	19,502.83
Laundries, Dye and Cleaning Works.....	2,573	9,082.25
Logging and Lumber Operations.....	2,605	9,355.63
Machine Shops, Foundries, Garages.....	6,475	21,754.02
Mining Not Coal.....	20,374	75,963.06
Printing and Publishing.....	1,463	6,328.04
Sugar Factories.....	5,262	20,015.58
All Others.....	35,877	153,409.46
Total.....	93,092	\$ 385,725.88

## Plan No. Three

Coal Mining.....	6,155	\$ 45,563.46
Contractors and Builders.....	12,147	70,649.00
Electrical Plants and Water Works and Railways.....	189	1,181.29
Flour Mills and Grain Elevators.....	333	1,391.79
Logging and Lumber Operations.....	7,351	30,192.50
Machine Shops, Foundries, Garages.....	442	2,002.30
Mining Not Coal.....	12,421	57,861.40
All Others.....	16,752	77,950.92
Total.....	55,790	\$ 286,792.66

## All Plans

Industries	Days Lost	Amount
Coal Mining.....	40,696	\$ 251,811.78
Contractors and Builders.....	23,666	121,867.04
Electric Plants, Railway and Water Works.....	8,992	38,795.45
Flour Mills and Grain Elevators.....	5,165	21,726.05
Laundries, Dye and Cleaning Works.....	2,755	9,515.35
Logging and Lumber Operations.....	34,488	144,166.26
Machine Shops, Foundries and Garages.....	6,917	23,756.32
Mining Not Coal.....	242,153	1,130,600.24
Printing and Publishing.....	1,463	6,328.04
Smelters.....	45,786	194,312.83
Sugar Factories.....	5,262	20,015.58
Telephone and Telegraph.....	4,011	17,695.32
All Others.....	54,529	240,425.10
Total .....	475,883	\$2,221,015.36

The above table shows that the average daily wages lost to injured employees is \$4.66. During the eight year period there was, exclusive of 1029 deaths and total disability cases, a total of 42,661 accidents. The average number of days lost per accident was, therefore, 11.13 and the average amount of wages lost \$51.87.

## INDUSTRIAL ACCIDENT BOARD

INJURIES CLASSIFIED AS TO PARTS OF BODY AFFECTED.

Parts of Body Affected	Nature of Injury												
	Bruises.....	Cuts.....	Punctures.....	Sprains.....	Fractures.....	Dislocations.....	Amputations.....	Scalds.....	Burns.....	Operations.....	Infections.....	Unclassed.....	Total.....
Foot.....	2,178	582	753	217	401	12	12	19	106		72	118	4,470
Leg.....	1,759	704	831	136	932	9	17	24	72	1	82	98	3,498
Thigh.....	277	90	22	29	34	3		3	22		8	9	316
Ankle.....	602	86	5	951	208	35		2	26		14	23	1,965
Knee.....	657	244	56	336	37	46		1	5	1	46	64	1,483
Hip.....	1,387	53	9	65	37				6		1	21	1,531
Hand.....	1,107	1,819	267	53	134	4	23	10	379	6	402	21	4,293
Thumb.....	550	760	53	40	156	27	76		14	1	84	56	1,817
Wrist.....	179	356	38	334	161	28		5	14		30	29	1,209
Forearm.....	126	158	16	25	81		2	4	44		16	6	478
Forearm.....	667	445	43	111	406	12	14	18	159	4	60	41	1,980
Arm.....	188	106	6	43	27	23		1	3		23	19	439
Elbow.....	888	154	4	201	70	161		1	21	1	8	42	1,551
Shoulder.....	2,592	536	168	19	570	52	488		110	2	463	163	8,164
Finger.....	1,377	527	24	9	550	15	51	1*		1	38	75	2,677
Toes.....					158	14						2	191
Clavicle.....	95	58	1	31	3	2		4	89		1	6	290
Neck.....	417	43	6	15	1			3	16			21	522
Chest.....	626	40	8	132				3		1		3	89
Side.....	1,455	168	7	1,199	28	10		2	26		1	116	3,012
Back.....	260	550	22		10			7	281	1	13	23	1,167
Face.....	433	1,468	3	1				3	38		7	54	1,994
Head.....	59	132	1		81	1			8		7	5	294
Nose.....	74	421	8		2			1	19		3	2	530
Forehead.....	100	1,857	6						5		14	3	1,988
Scalp.....	37			1	76	677			1			3	89
Skull.....				28			6					40	886
Ribs.....	130	1	45		1		20	6	245	11	251	1,304	2,866
Eye.....	498	496										291	306
Hernia.....	4											1	98
Internal.....	19	33		5			5	6	48	6	27	125	1,755
Unclassed.....	506	33	33	102	119	11		6				556	1,755
Total.....	18,316	15,201	1,688	4,099	4,283	1,190	714	125	1,815	36	1,675	3,443	52,593

*Medical Costs.*

The Act provides that the employer, the insurer, or the Board, as the case may be, shall defray the cost of reasonable medical, surgical, and hospital service furnished during the first two weeks following injury in an amount not exceeding \$100.00. The liability for payment of balance of the service required rests upon the injured employee. In cases where the employer and employee have entered into hospital contracts, the above described provision of law is waived and the hospital contract must furnish unlimited medical, hospital and surgical service, not only for industrial accidents but for sickness arising during the course of the employment. The greater percentage of employers do not have a sufficient number of workmen to make the obtaining of a hospital contract possible and medical service is provided as above described.

In many cases, \$100.00 is totally inadequate to cover the cost of the medical service which the employee requires and the period of two weeks is also too short to permit recovery from anything except minor injuries. There are only twelve states out of the forty-two having compensation acts that limit the amount paid for medical service to \$100.00. Thirteen states fix the limit at amounts varying from \$150.00 to \$500.00 and seventeen states fix no monetary limit. There are only five states out of forty-two which limit the time during which medical service may be provided, to fourteen days following injury. Twenty-two of the states fix the time limit at from thirty to ninety days, while fifteen states fix no time limit at all.

There is no question but what the limitations fixed in the Montana Act are grossly unfair not only to the employees but in many cases to the members of the medical profession. While the cost of medical service furnished beyond the first fourteen days is a legal liability on the injured man, it is often true that he is unable to pay and the doctor loses the account. As a matter of fairness, the limit should be raised so that medical service would be provided during the first six months following injury in an amount not exceeding \$500.00. This would cover more than 99.9 per cent of the cases and would be about in line with the average provisions in other states.

Prior to August 15th, 1923, the Montana Board had never adopted a fee schedule for the payment of medical bills. Practically every other state in the Union had adopted such a schedule. While the great majority of the doctors in the state had submitted bills that were reasonable, it was likewise true that a few doctors took advantage of the condition and made excessive charges. After more than a year of serious consideration of the matter, the Montana Board finally determined that it would also have to adopt a fee schedule as a matter of protection against a few doctors who were in reality looting the Industrial Accident Fund. The schedule adopted August 15th, 1923, provides fees that are about five per cent higher than the average of the fees provided in the other northwestern states. Practically all of the doctors in the state have cheerfully complied with the schedule and many of them have commended the Board for its action in adopting such a fee list. A few doctors, largely those who were rendering excessive bills in the first place, have vigorously protested the Board's action. The following table shows a few of the bills which were submitted during the sixty day period prior to the adoption of the schedule, and furnishes some evidence as to the necessity for the Board's action.



Employer's Report of Injury	Doctor's Report of Injury	Days off work	Doctor bill
Cut hand with knife.....	Cut tendon on first finger mild infection. Sutured tendon, applied wet dressing.....	None	\$28.00
Cut head about four inches—flesh wound only .....	Laceration of scalp extending from over left eye to occiput and down over left ear. Gave anesthesia myself, trimmed edges, shaved head, sutured, put in small rubber drains .....	3	\$95.00
Crushed lower end little finger—left.....	Fracture phalanx left small finger—no infection—anesthetic—splint—X-ray—dressing .....	None	\$35.00
Sliver three inches through hand, required cutting and four stitches.....	Splinter driven through hand—Excision of splinter, local anesthetic and dressings.....	None	\$31.00
Knife wound in hand.....	Severe incised wound across joint right thumb.....	None	\$37.00
Two fingers cut open by knife.....	Incised wound two fingers—cleaning, suturing, dressing.....	None	\$30.00
Contusion to leg with injury to knee.....	Blow on thigh above knee. Injury to knee joint and whole knee. Dressing and immobilized.....	4	\$50.00
Mashed thumb causing loss of nail.....	Laceration of thumb—cleaned, trimmed, nail removed—dressed moist .....	4	\$48.00
Knife cut palm of hand.....	Deep laceration of left thenar portion left hand. Hematosis, dislodgement, closure wound—dressing .....	4	\$34.00
Scratch on thumb.....	Abscess in distal joint at thumb. Incision—drainage, local anesthesia—daily dressing.....	None	\$55.00
Thumb nail torn off.....	Nail torn loose at thumb. Antiseptic dressing.....	None	\$36.00
Lath nail in foot.....	Stepped on nail—infection—drainage—compression. Rest.....	5	\$77.00
Sliver in finger not bad.....	Splinter in palmar surface hand—X-rayed and finger opened at base .....	None	\$36.00
Piece steel imbedded in wrist.....	Steel imbedded in muscle forearm—Radiograph operation for removal .....	4	\$40.00
End finger bruised. Nail will come off.....	Contusion end finger with echomoses and swelling. Loss nail.....	None	\$42.00
Three toes badly bruised. Will lose nails .....	Bruised and cut toes infection—Hot application. Iodine Sale solution .....	None	\$50.00
Splinter glass in hand. Blood poison.....	Glass in hand. Infection. Opened, drained, dakin solution. Wet dressing .....	None	\$43.00
Finger into saw. Not serious .....	Laceration finger. Cauterized wound. Wet Achsuers pack applied .....	4	\$45.00
Sliver—not serious.....	Puncture wound dorsum at hand involving all tissues including periosteum, metacarpal bone of thumb. Cleaning, iodine, exam. for foreign bodies, dressing—uninfected..	None	\$38.00

Employer's Report of Injury	Doctor's Report of Injury	Days off work	Doctor bill
Knuckles of one hand slightly cut — Five visits to doctor for dressings on y.....	Cut to bone over second meta- carpal phalangeal arbenation at hand. Suture of cut. X-ray, lo- cal treatment.....	None	\$39.00
Finger badly broken. Another bruised.....	Compound fracture little finger. Lacerated wound index finger.....	None	\$67.50

The following table shows the amount of expenditure for medical, hospital and surgical service under Plan Three for each of the nine years and the average cost per case upon which payment has been made.

Fiscal Year	Bills Paid	Total Expenditures	Average per case
1915-1916.....	63	\$ 1,415.00	\$22.46
1916-1917.....	195	3,886.55	19.93
1917-1918.....	293	6,999.35	23.88
1918-1919.....	234	5,894.85	25.19
1919-1920.....	558	12,052.40	21.60
1920-1921.....	729	17,676.75	24.25
1921-1922.....	709	21,460.62	30.27
1922-1923.....	722	23,163.30	32.08
1923-1924.....	757	20,911.04	27.62

#### *Compensation Benefit.*

There has been a very marked and general tendency to liberalize and increase the amount of benefit provided through compensation legislation in the various states during the past five or six years. The liberalization has come about in two ways. Almost without exception, boards, commissions and courts, in passing upon compensation cases, have continually tended to increase the class of injuries for which compensation is payable, so that many cases are now accepted for compensation payment which were formerly rejected. A great many of the states have liberalized their compensation laws to provide for increased benefits. Nearly all of the compensation laws in the United States were enacted from eight to twelve years ago, when the purchasing power of a dollar was one hundred cents. The purchasing power of the same dollar is now between sixty and seventy cents. So, while there has been a marked increase in the amount of benefit provided through changes in the various laws, a considerable part of this increase has been taken up by the decreased purchasing power of the dollar.

In 1919, Montana increased its compensation benefits twenty-five per cent by raising the maximum compensation rate from \$10.00 to \$12.50. Since its original enactment, there has been no other material change in the law tending to liberality. Today the compensation cost to the employer is lower in Montana than in any of the other forty-one states having compensation acts. Unfortunately, the compensation benefits provided by the Montana Act are third from the bottom of those provided by other states.

The average length of the waiting period in all the states is nine days. The waiting period in Montana is two weeks. To cut the waiting period from two weeks to one week or even to ten days would add materially to the total amount of compensation paid to injured workmen. There does not appear to be any good reason why the waiting period should be as long as two weeks. Some waiting period should be provided, but it would be much fairer to workmen if this was cut to one week.



Not to exceed fifty per cent of the wages earned prior to the time of injury is payable as a compensation benefit under the Montana Act. The average percentage of wages in all the states having compensation acts is fifty-eight. Those states that have liberalized their acts within the past two or three years have practically all fixed the percentage at sixty-four and two-thirds. I appears that it should not be less than sixty per cent in Montana.

The average of the maximum rate of compensation fixed by the various states is \$15.50 per week. In Montana it is \$12.50 per week. The states that have made revision of their acts within the past four or five years have fixed the maximum rates at from \$18.00 to \$25.00 per week. The \$12.50 weekly benefit payable under the Montana Act will now purchase about the same quantity of clothing and food as \$7.50 would have purchased when the Montana Act was enacted. The decrease in the purchasing power of the dollar has in effect operated to cut the benefits provided down to twenty-five per cent less than the Legislature of 1915 designed to make effective when it provided for a \$10.00 per week maximum.

\$12.50 per week, or approximately \$54.00 per calendar month, will barely permit an injured man who has no dependents to live. When he has a wife and children or other dependents, as is often the case, the compensation payment now made will not even furnish an existence, let alone the living for the family. This is particularly true in the industrial centers where employees are obliged to live in rented houses and purchase every item of food, clothing and fuel that the family consumes. As a matter of ordinary fairness, the maximum benefit payable should be increased to the point where it is in line with the benefit provided in other states.

The law designates the exact payment for cases of permanent total disability and for death cases, so that there is no yearly variation in the average amount paid on claims within these two classes. The following table shows the average that has been paid in compensation for each case where the disability is temporary total or permanent partial for each of the past nine years under Plan Three.

Fiscal Year	Number Compensation except Permanent Total and Fatal	Total Compensation Paid	Av. per case
1915-1916.....	173	\$ 4,888.35	\$28.26
1916-1917.....	507	16,032.16	31.62
1917-1918.....	653	30,552.34	46.79
1918-1919.....	624	45,682.05	73.21
1919-1920.....	978	68,575.22	*70.12
1920-1921.....	1,032	94,394.57	91.47
1921-1922.....	948	92,710.50	97.80
1922-1923.....	1,206	105,155.45	86.37
1923-1924.....	1,398	96,245.89	68.85

\*Weekly compensation rate increased from \$10.00 to \$12.50 on March 4th, 1919.

#### *Vocational Disease.*

Eight states now pay compensation benefits for disability or death resultant from vocational disease the same as though the disability or death was resultant from accident. A workman who suffers disability as a result of lead poisoning in a smelter is just as much a disability as though he had been injured in the same smelter. The wives and children of those who die from miner's consumption contracted in the copper mines are just as dependent as the wives and children of the miners whose deaths are due to a fall of ground. Compensation is based on the theory that the industry should bear a part at least of

the burden of caring for those who have been rendered unable to care for themselves due to the hazard of the industry. There appears to be no reason why this theory should not apply to vocation disease as well as to accidental injuries.

Outside of a rare case of cement poisoning in the cement plants or an occasional case of lead poisoning in the smelters, there is but one industry in the state seriously affected by vocational disease. This is the copper mining industry in Butte.

From 1916 to 1919, Mr. Dan Harrington, an expert in the employ of the U. S. Bureau of Mines, assisted by Dr. Lanza of the U. S. Public Health Service, made a study of the matter of silicosis or miner's consumption in Butte. It appears that only a very small part of the information which these experts gathered was ever published. In the data that was published, however, is a tabulation showing that physical examination was made of about thirteen hundred miners who voluntarily presented themselves for such examination. Forty-two per cent of these were affected with silicosis or miner's consumption. Half of this forty-two per cent then had the disease in advanced stages. The same published report also shows that the death rate from tuberculosis among Butte miners is thirteen times higher than normal.

In December of 1923, a representative of this Board had occasion to check up the Catholic burial records of St. Mary's Parish in Butte. This parish is populated almost exclusively by miners and their families. The Parish was at that time inhabited by four hundred seventy-three Catholic families. According to Catholic officials, two hundred one of these families were headed by widows whose husbands had been the victims of either accidents or miners consumption. The burial records disclose that from January 1st, 1919, to April 1st, 1923, one hundred fifty-one males over the age of twenty-one years had died. The cause of death for seventy-eight out of the one hundred fifty-one, or fifty-two percent, was given as miner's consumption, silicosis, or pneumonia.

Eight states now include vocational disease in their compensation laws and its inclusion is under consideration by a number of other states. In the hope that it might be able to lay before the Legislature definite information on the silicosis situation in Montana, the Board during the past year made an attempt to obtain from the U. S. Bureau of Mines all the data it had gathered during its four years of study of conditions in Butte. Failing to obtain any data other than that published in the bulletins of the U. S. Bureau of Mines, it sought to work out a co-operative agreement for a further study and a more complete report on conditions in Butte, but in this it was unsuccessful. It appears that the situation may well merit the earnest consideration of the Legislature.

#### BUREAU OF ACCOUNTS

During the last fiscal year, the number of accident cases handled by the Board increased approximately eleven per cent over the number handled for the preceding fiscal year and approximately forty-one per cent over the number handled for the fiscal year 1921-1922. There has also been a slight increase in the number of employers under Plan Three. All of this has added to the volume of work to be handled by the Board and has made it increasingly impossible to keep the cost of operating the department within the legislative appropriation of \$54,000.00. Although the present Board has always made an especial effort to keep the cost down, it redoubled this effort during the past year in the hope that the legislative appropriation might not be exceeded.

The last Legislature passed an act providing that steamboats and water craft of all kinds shall be inspected annually by the boiler inspectors. The Board, after an effort, was obliged to order a suspension of this work for two reasons. First, because it found that the boiler inspectors have absolutely no qualification for the inspection of steamboats or water craft; and, secondly, because it was patent that this inspection could not be carried on without greatly increasing the deficiency over the appropriation.

The law provides that in the event of a fatality due to a mine accident, an immediate investigation and report must be rendered by the mine inspector. The Board ordered a discontinuance of this practice, in other than exceptional cases, in order to save the traveling expenses of the inspectors. For instance, the coal mine inspector may be engaged at his regular work in Stockett when he receives advice that a miner has been killed, due to a fall of ground, at Bearcreek. Under the law, he should proceed immediately to Bearcreek, make an investigation, and report. He must then, of course, return to Stockett to finish up the work which was interrupted. This practice adds several hundred dollars to the expense of each one of the mine inspectors during the year and since it has been found possible to get just as much information relative to the accident when the inspector makes his next regular visit to that locality, the Board, in the interest of economy, suspended the practice for the past year, although the doing so was in technical violation of the law.

In order to promote further economy, the Board has also been obliged to instruct the boiler inspectors to pass up isolated boilers and hazardous plants where the cost of getting to such boilers or plants would greatly exceed the amount of inspection fee. This practice cannot, of course, be continued very long without endangering the lives of those who must work around these isolated boilers or isolated hazardous plants. The Board has also continually insisted that the traveling expense of the employees of the department be held to the minimum, that every bit of unnecessary printing and postage be eliminated, that the telephone and telegraph be used as sparingly as possible, and it has kept the salaries of the employees down as low as it consistently could and retain the services of competent help. Despite all this, the cost of operating the department exceeded the appropriation for the year by \$771.83.

The salaries for workers in the Bureau of Industrial Rehabilitation and the money that is actually spent upon trainees comes from a separate appropriation which will be reported upon in detail under "Industrial Rehabilitation." A certain part of the overhead expense of the Bureau of Rehabilitation, such as telephones, telegrams, stationery, printing, etc., is borne by the appropriation for the Industrial Accident Board. The following table gives the cost of operating the department, inclusive of a part of the overhead expense for the Bureau of Rehabilitation, but exclusive of salaries, funds provided to trainees, and other expenditures, from the Industrial Rehabilitation Fund.

Fiscal Year	Cost of Department	Legislative Appropriation	Surplus or Deficiency
1917-1918.....	\$52,770.15	\$53,800.00	\$1,029.85*
1918-1919.....	56,477.35	53,800.00	2,677.35**
1919-1920.....	58,764.61	55,800.00	2,964.61**
1920-1921.....	61,550.04	55,800.00	5,750.04**
1921-1922.....	48,853.81	53,146.00	4,292.19*
1922-1923.....	54,357.80	48,146.00	6,211.80**
1923-1924.....	54,771.83	54,000.00	771.83**
	*Surplus	**Deficiency	

It will be noted that the total cost for the past three years under the present administration was \$157,982.94 as contrasted with a cost for the preceding three years under the former administration of \$176,792.00. Despite a considerable increase in volume of business handled, the saving has been \$18,809.06.

Approximately half the cost of maintaining the department, exclusive of the cost paid from the fund for Industrial Rehabilitation, is earned by the department from inspection fees on boilers and steam machinery, hazardous plants, quartz mines, coal mines, and miscellaneous items. The following table shows the cost of operating the department contrasted with its earnings for each of the past seven years.

Fiscal Year	Total Cost of Department	Income from Inspections	Net Cost of Department
1917-1918.....	\$52,770.15	\$28,732.75	\$24,037.40
1918-1919.....	56,477.35	28,944.67	27,532.68
1919-1920.....	58,764.61	28,011.97	30,752.64
1920-1921.....	61,550.04	26,460.93	35,089.11
1921-1922.....	48,853.81	27,214.76	21,639.05
1922-1923.....	54,357.30	28,498.49	25,858.81
1923-1924.....	54,771.83	28,273.84	26,497.99

The following statement shows the financial condition of the department at the close of the fiscal year. Foot-notes, explaining each item, appear following the statement. While the total cash and invested funds of the department is \$436,202.14, exclusive of the Administrative Fund derived from inspection fees and appropriated by the Legislature toward the maintenance of the department, the known liabilities (the amount it would take to pay out on all compensation cases now pending) is approximately \$175,000.00. Therefore, the fund for the payment of compensation now has a reserve of approximately \$261,000.00 against any great calamity which may occur. The table showing known liabilities is not published because of its length. It was made up by going over each case carefully and estimating the amount of liability in comparison with similar cases that have been settled. Copy of the table is on file in the office of the board.

#### FINANCIAL STATEMENT AS OF JUNE 30, 1924.

##### ASSETS

<b>CASH FUNDS:</b>		
Industrial Accident Fund.....	\$ 78,152.57	
Industrial Reserve Fund.....	46,294.67	
Less Outstanding Warrants.....	20,780.80	
Net Cash on Hand.....		\$ 103,686.44
<b>INVESTED FUNDS:</b>		
Registered Warrants.....	\$ 24,485.88	
Industrial Reserve Fund.....	158,497.51	
Industrial Accident Fund.....	149,532.31	
Net Invested Funds.....		\$ 332,515.70
Total Cash and Invested Funds.....		\$436,202.14
Administrative Funds.....		4,037.86
Trustee Account.....		122,913.36
Suspense Account (To be adjusted).....		415.74
Administrative Expense.....		54,771.83
		<hr/>
		\$618,340.93

##### LIABILITIES:

Premium Income.....	\$1,337,990.09	
Less Compensation Paid.....	\$997,589.93	
Net Premium Income.....		\$340,400.16
Administrative Income.....		42,259.03
Bonds in Trust.....		122,913.36
Special Deposits.....		12,460.89
Interest Collected.....		83,756.83
Registered Warrants Administrative.....		16,550.66
		<hr/>
		\$618,340.93



*Industrial Accident Fund*, shown above as \$78,152.57 cash and \$149,532.31 invested in securities, is made up from all assessments on payroll and interest collected. All payments for compensation and refunds are made directly from this fund. The main fund consists of some 127 sub industry funds. The cash on hand is carried as a deposit with the State Treasurer who pays interest thereon at the rate of 2½ per cent.

*Industrial Reserve Fund*, shown above as \$46,294.67 cash and \$158,497.51 invested in securities, is made up of a certain per cent of premiums collected into the Industrial Accident Funds and then transferred to the Reserve Fund to take care of the accrued liabilities on accident cases upon which compensation is still payable. All interest collections from the State Treasurer and from bonds and warrants held for investment is first credited to the Industrial Accident Fund, but periodically transferred to the Reserve Fund. This Reserve Fund is considerably more than sufficient to meet all the accrued liabilities.

*Less Outstanding Warrants*: This represents the total amount of warrants issued by the Board to injured employees, which have not been redeemed by the State Treasurer at the time of statement and consequently must be deducted from the gross cash funds to show the net amount of cash on hand.

*Registered Warrants*: These are warrants taken in payment of premiums from counties, cities and school districts and are held by the Board until called and redeemed by the various treasurers. They all pay six per cent interest.

*Administrative Fund*: This fund is made up of collections from the Bureau of Safety and comprises inspection fees for hazardous plants, boilers, quartz and coal mines. A portion of the expense of administering the Board is paid from this fund by legislative appropriation.

*Trustee Account*: This Account is carried for the purpose of showing the aggregate amount of securities deposited by employers and held by the Board as a guarantee that they will make compensation payment when operating under Plan One of the Act.

*Suspense Account*: This account is the total of funds which were in process of collection and tied up in closed banks and of checks which were credited and later refused due to the closure of banks while the checks were in process of collection.

*Administrative Expense*: This is the amount expended for the maintenance and operation of the department from the beginning of the fiscal year.

#### LIABILITIES.

*Premium Income*: This account shows the net amount of premium income for the nine year period. There is included in this statement only the premiums that have been collected. Assessments are not credited on the books until collection has been made.

*Less Compensation Paid*: This is the amount of compensation that has been paid out in the nine year period.

*Net Premium Income* is the net balance on hand after deducting the compensation paid from the total premium income.

*Administrative Income* is the gross amount collected from inspection fees of all kinds.

*Bonds in Trust*: The same as Trustee Account under assets.

*Special Deposits:* These are deposits required by the Board from certain employers operating under Plan Three to guarantee the payment of any premiums that may become due from them.

*Interest Collected:* This is the total amount of interest collected on investments less accrued interest paid on the same at the time of purchase.

*Registered Warrants Administrative* is the overdraft on the Industrial Administrative Fund for the year, the Legislature having provided an appropriation of \$54,000.00 on this fund with no possibility of there being sufficient money in the fund to meet the appropriation. The overdraft is being retired from the earning from inspection fees for the year 1924-1925, since the appropriation for Board maintenance for this year comes from the General Fund.

### INVESTMENTS.

It is the policy of the Board to keep about fifty thousand dollars in cash on hand as a fund to meet current compensation payments and to take care of the liabilities that ordinarily accrue. The balance of the Industrial Accident Fund and the Industrial Reserve Fund is invested in securities consisting of improvement district, city, county or state bonds, school warrants or bonds, government bonds or United States Treasury notes. These securities are purchased from many different sources and at the best prices at which they can be obtained. It is the policy of the Board to invest in securities that will return the best rate of interest consistent with safety of the investment. At times, the Board has experienced no inconsiderable trouble in keeping the funds invested in securities that will meet such requirements.

Following is a list of the securities held by the Board at the conclusion of the fiscal year June 30th, 1924. In addition to the securities herein shown, the Board has on hand \$24,485.88 of registered warrants taken in payment of premiums from various school districts, towns, cities and counties. Among the securities held in the Reserve Fund is one Columbus Irrigation District warrant having a book value of \$1,030.63, which was purchased by the former administration during 1920 and which, undoubtedly, has little or no actual value. It should be written off as a loss. The Board is also carrying in its registered warrants another Columbus Irrigation District warrant taken in payment of premium assessment during 1920 for \$980.00. It is also, undoubtedly, valueless and should be written off as a loss. Other than these two securities, the Board believes that every security held by it will be retired on the due date for full value with accrued interest. As will be noted by the list, none of the securities are past due and all interest payment has been collected when it became due.

## INDUSTRIAL ACCIDENT FUND INVESTMENTS.

Description	Interest Bearing Rate	Value Face	Value Books	Maturity Date
<b>BONDS</b>				
<b>Federal:</b>				
Treasury Notes.....	05%	\$ 5,000.00	\$ 5,000.00	June 15, 1924
<b>County:</b>				
Chouteau County Funding.....	05½	3,000.00	3,000.00	Jan. 1, '26-'28
Park County Highway.....	05	9,000.00	9,000.00	July 1, '25-'34
Prairie County Funding.....	05	7,000.00	7,000.00	Dec. 1, 1935
<b>Municipal:</b>				
City of Eureka S. I. D.....	06	16,000.00	15,200.00	Various
City of Forsyth S. I. D.....	06	331.69	331.69	Call
City of Havre S. I. D.....	06	17,835.00	17,389.12	Jan. 1, 1928
City of Laurel S. I. D.....	06	18,037.50	17,316.00	Jan. 1, 1933
City of Whitefish S. I. D.....	06	29,177.18	28,301.86	Various
Sub Total.....		\$105,381.37	\$102,538.67	
<b>WARRANTS</b>				
<b>State:</b>				
Industrial Admin. Fund.....	06	\$ 6,566.27	\$ 6,566.27	Call
<b>County:</b>				
Fergus County Sch. Dist.....	06	10,225.44	10,120.17	Call
Rosebud Co. Gen. & Sch. D.....	06	7,489.27	7,428.00	Call
Sheridan Co. Class Fund.....	06	5,925.86	5,748.08	Call
Tooie County General Fund.....	06	7,411.80	7,220.23	Call
Valley County Class. Fund.....	06	10,217.41	9,910.89	Call
Sub Total.....		\$ 47,836.05	\$ 46,993.64	
Grand Total.....		\$153,217.42	\$149,532.31	

## RESERVE FUND INVESTMENTS.

Description	Interest Bearing Rate	Value Face	Value Books	Maturity Date
<b>BONDS</b>				
<b>Federal:</b>				
Liberty Bonds.....	04%	\$ 20,000.00	\$ 20,000.00	Oct. 15, 1933
<b>State:</b>				
Veterans' Welfare Bonds.....	05	15,000.00	15,000.00	Jan. 1, 1925
<b>County:</b>				
Mineral County Bonds.....	05	12,000.00	11,197.20	July 1, 1939
<b>Municipal:</b>				
City of Lewistown Water.....	05	2,000.00	2,000.00	Jan. 1, 1934
City of Shelby Water.....	06	3,000.00	2,760.00	Jan. 1, 1940
City of Whitefish S. S. & C.....	06	3,010.75	2,769.89	Jan. 1, 1930
City of Livingston S. I. D.....	06	12,485.75	11,736.50	Jan. 1, 1936
City of Grass Range S. I. D.....	06	20,500.00	19,475.00	Apr. 1, 1925
City of Laurel S. I. D.....	06	15,435.24	14,956.38	Jan. 1, '27-'33
City of Billings S. I. D.....	06	4,800.00	4,350.00	Jan. 1, 1930
Sub Total.....		\$108,231.74	\$104,245.07	
<b>WARRANTS</b>				
<b>State:</b>				
General Fund.....	06	\$ 10,179.92	\$ 10,179.92	Call
Ind. Adm. Fund.....	06	6,661.07	6,661.07	Call
<b>County:</b>				
Fergus Co. Misc. Gen. Oblig.....	06	22,053.71	21,826.23	Call
Powder River Co. Bridge.....	06	2,872.20	2,786.04	Call
Big Horn Co. Poor.....	06	92.00	92.00	Call
Glacier Co. Poor.....	06	95.50	95.50	Call
Ravalli Co. Poor.....	06	31.00	31.00	Call
Roosevelt Co. Poor.....	06	28.50	28.50	Call
Silver Bow Co. Poor.....	06	1,436.05	1,436.05	Call
Rosebud Misc. S. Dist.....	06	9,929.68	9,830.39	Call
<b>City:</b>				
City of Cut Bank Gen. Fd.....	06	263.00	255.11	
<b>Irrigation District:</b>				
Columbus Irrig. District.....	06	1,062.50	1,030.63	
Sub Total.....		\$ 54,705.13	\$ 54,262.44	
Grand Total.....		\$162,936.87	\$158,497.51	



The following table shows the income from premiums, the income from interest and discounts, the compensation paid and the growth of the reserve funds during the past nine years:

Fiscal Year	Premium Income	Int. and Dis. Income	Total Income	Compensation Paid	Added to Reserve
1915-1916.....	\$ 29,058.86	\$	\$ 29,058.86	\$ 6,303.35	\$ 22,755.51
1916-1917.....	43,343.84	412.02	43,755.86	34,587.17	9,168.69
1917-1918.....	132,277.58	1,066.03	133,343.61	55,236.29	78,107.32
1918-1919.....	181,709.35	2,124.27	183,833.62	68,708.45	115,125.17
1919-1920.....	225,507.86	7,702.38	233,210.24	135,002.94	98,207.30
1920-1921.....	202,981.07	13,146.03	216,127.10	167,694.40	48,432.70
1921-1922.....	186,383.56	16,775.82	203,159.38	174,516.93	28,642.45
1922-1923.....	188,916.19	19,012.53	207,928.72	192,583.46	15,345.26
1923-1924.....	147,396.04	23,517.75	170,913.79	162,956.94	7,956.85
Total .....	\$1,337,574.35	\$ 83,756.83	\$ 1,421,331.18	\$ 997,589.93	\$ 423,741.25

An analysis of the above table shows that the yearly additions to the total volume of the reserve funds on hand has been decreasing since 1919. The accrued disabilities, that is, the amount of compensation payment required to settle up all outstanding cases is approximately \$175,000.00. There are several reasons why the additions to the reserve are decreasing year by year.

The rate to the employers has remained the same, but in 1918 the legislature increased the maximum compensation rate from \$10.00 to \$12.50 per week. It also provided for payment during the first two weeks in case the disability was longer than six weeks. Both of these amendments increased the drain on the funds. As heretofore stated, there is a constantly increasing liberality in the administration of the Act. Many classes of cases are now accepted not only by this Board but by all boards and commissions, that were formerly denied. This furnishes an additional increase. The cost of medical service, not only in the aggregate but per case, has gone up year after year and has constantly increased the drain. The Board has not had the funds with which to carry educational campaigns on safety first and there has been a considerable increase in the percentage of accidents occurring. This has added another drain to the fund.

In view of these conditions, if the Board is to obviate the necessity of raising the rates on all employers, it will be obliged to administer the payment of compensation with the utmost conservatism, to insist and, if necessary, force collection on all possible delinquent accounts and slightly increase the rates on several classifications of industry for which the experience tables show a deficit. By inaugurating and carrying out such a policy, the Board hopes it will be possible to avoid any general increase in rates until such time as the legislature increases the weekly compensation payments, when an increase in rates to employers will be inevitable.

#### *Losses in Collections.*

Earned premiums are not carried to the books or listed as assets until collection is made. These amounted to approximately \$105,544.00 at the close of the fiscal year. Because of the difficulty of getting all payrolls in on time and because of minor adjustments which are constantly being made due to changes in classification and for other causes, it is practically impossible to compute the exact amount of earned but uncollected premiums for any given date. The amount on June 30, 1924, was, however, considerably larger than at the close of any preceding fiscal year. The primary cause for this was due to the business stagnation and depression from which we are just emerging, which naturally retarded collections in all businesses. A secondary

cause lies in the fact that some minor changes were made in the time for levying assessments during the past fiscal year and it left outstanding a larger sum of uncollected money than would have otherwise occurred.

The following table shows the losses that have been sustained in the collection of premium assessments under Plan Three by calendar years. Those accounts which the Board is still trying to collect by attachment of property, or otherwise, are carried in a "Suspense File" and are recoverable in part.

Calendar Year	Collections	Losses	Per Cent Loss
1915.....	\$ 9,273.86	\$	
1916.....	39,447.38	90.00	.0023*
1917.....	75,094.37	150.00	.0020
1918.....	149,730.91	250.00	.0017
1919.....	186,939.10	365.00	.0019
1920.....	253,826.62	1,597.63	.0063
1921.....	171,328.13	568.29	.0033
1922.....	180,860.95	891.94	.0049
1923.....	206,324.04	257.20	.0012
1924.....	65,164.73	111.13	.0017*
Total.....	\$1,337,990.09	\$ 4,281.19	.0032
Suspense File.....		7,703.96	
Total not collected.....		\$11,985.15	.0091

\*For one-half calendar year.

#### BUREAU OF SAFETY.

The several laws administered by the Board require at least an annual inspection of each quartz mine, boiler and hazardous plant in the state. The coal mining code requires quarterly inspection of coal mines. As a matter of practice, it is not feasible to inspect many of the smaller coal mines, where but two or three men are employed, more than once a year. The cost precludes this. All of the larger coal mines are inspected at least four times annually. The larger quartz mines, particularly those in the Butte district, are also inspected three or four times annually. The last legislature also amended the law pertaining to the inspection of steamboats and water craft to provide that such inspection be made by the boiler inspectors. It has been found impossible to do this. Boiler inspectors have no qualification for the inspection of steamboats and water craft nor for the examining of captains and pilots. Moreover, the legislature made no appropriation for the work and the Board has had no funds with which to carry it on. There is said to be about one hundred fifty water craft, inclusive of gasoline launches and ferries, subject to inspection under the law.

Under the law, the Board is allowed not to exceed four inspectors of boilers and hazardous plants, two quartz mine inspectors, and one coal mine inspector. One quartz mine inspector and one coal mine inspector are sufficient to handle the work of mine and mill inspection. Four boiler and hazardous plant inspectors can hardly cover all the inspections that the law requires of them, exclusive of steamboat and water craft inspection. As a matter of fact, there are several hundred boilers in the state that are inspected only every second or third year because the inspectors cannot get to each boiler annually and for the added reason that the cost of making an annual inspection of boilers in isolated districts is excessive.

In view of these conditions, the Board has attempted to so administer the Bureau of Safety that the greatest good may be accomplished. It is believed that all of the important hazardous plants and prac-

tically all of the boilers that are in continuous use have been inspected annually, while an attempt has been made to inspect the smaller hazardous plants and those boilers not in continuous use at least every other year. All of the larger mines, both quartz and coal, have been inspected at least once each year.

The following table shows in detail the work that was accomplished by each inspector, the collections that were made as a result of his work, the cost therefor, his expense, and net profit, or loss. It will be noted that the coal mine inspector and the quartz mine inspector operated at a heavy loss to the department, the total monetary loss on the two being \$6,022.71. The total amount of monetary loss on these two inspectors since March 1st, 1917, has been \$51,085.25. The loss arises from the fact that the fees fixed by law for the inspection of mines are entirely inadequate to meet the cost of the inspection. To make this work self supporting, the inspection fee should be doubled at least.

The laws under which the various inspectors of the Bureau of Safety operate are not very satisfactory. These are a patchwork of enactments and amendments made from time to time and are more or less vague and conflicting. The coal mining code should be amended in some particulars to make it more readily workable and to bring it in conformity with modern day practices in coal mining. The quartz mining code is really no code at all and should be entirely re-written, with the idea of providing greater safety for workers in hard rock mines. The boiler code should be rewritten and reenacted to the end that it better fit present day conditions and that it be brought abreast of the changes and development in the operation of steam boilers and steam machinery that has taken place during the past twenty-five years. Steps might also well be taken toward the adoption of standard safety codes for various classes of hazardous plants. This has been done in practically every other state, while, in Montana, the inspectors of such plants have been making inspections without any very adequate idea as to what constitutes a reasonably safe plant or as to what safeguards and protection are really required by the employees in such plants.

#### WORK OF SAFETY BUREAU FOR PAST YEAR.

Inspector	Licenses Issued.....	Boiler Inspections.....	Safety Inspections.....	Cash Collections.....	Salary and Expense	Profit + Loss -.....
Floyd Johnson.....	374	877	41	\$ 6,318.42	\$ 4,601.39	\$ 1,717.03+
J. H. Bondy.....	572	988	84	7,632.00	4,242.25	3,389.75+
J. R. Hartley.....	418	556	99	3,934.50	3,896.80	37.70+
John Taylor.....	260	673	72	4,650.64	4,598.15	52.49+
Geo. Griffin.....	1		215	964.75	4,203.75	3,239.00—
Wm. Maxwell.....			243	1,229.58	4,013.29	2,783.71—
Office .....	2,906			3,400.00	2,516.00	884.00+
	4,530	3,094	754	\$28,129.89	*\$28,071.63	\$ 58.26+

\*In addition to the total of \$28,129.89 cash collections, there was \$2,271.46 of uncollected inspection fees at the end of the fiscal year.

## WORK AND COLLECTIONS SAFETY BUREAU—SEVEN YEARS.

The following table shows the detailed operations of the Bureau of Safety for each of the past seven years:

Fiscal Year	Licenses Issued	Boilers Insp.	Plants Insp.	Fees Collected	Expense	Profit+ Loss —
1917-1918.....	4,986	2,358	262	\$28,732.75	\$27,831.15	\$ 901.60+
1918-1919.....	4,698	2,522	209	28,944.67	26,891.20	2,053.47+
1919-1920.....	4,724	2,501	76	28,011.97	27,746.01	265.96+
1920-1921.....	4,564	2,438	111	26,460.93	28,831.33	2,370.40—
1921-1922.....	4,232	2,121	280	27,214.76	25,094.00	2,120.76+
1922-1923.....	4,580	3,463	696	28,498.49	27,298.20	1,200.29+
1923-1924.....	4,530	3,094	754	28,129.89	28,071.63	58.26+
Average 7 yrs.	4,616	2,642	341	\$27,999.06	\$27,394.79	\$ 604.28+

## COAL MINE INSPECTOR'S REPORT

The general matter contained in the annual report of the State Coal Mine Inspector to the Industrial Accident Board is incorporated herein and follows. More detailed matter contained in his report is on file with the records of the Board.

August 4th, 1924.

Industrial Accident Board,

*Helena, Montana.*

Gentlemen:

I beg leave to submit herewith my sixth annual report as State Coal Mine Inspector for the fiscal year ending June 30th, 1924. I regret to have to report that the past year has been one of the worst in years from a business standpoint. Notwithstanding the fact that no serious labor disturbances have affected the coal mines of the state, the production shows a decrease as compared with other years.

There can readily be seen some causes for the decreased consumption of coal, such as the increasing use of oil on the railroads of the state, the increasing use of electricity for power and domestic use; also, the increasing use of gas, both manufactured and natural. Even when we consider all of these factors, still the great slump in the trade can hardly be accounted for. Another important factor ought not to be overlooked. That is, the increased development of the lignite veins in North Dakota. This takes away a comparatively large market which in the past was supplied by Montana coal.

Judging from the best figures obtainable, there has been about 153,000 tons of domestic coal shipped into Montana from other states. This should not be, for we have an abundant supply of good coal within our borders to supply all needs and I can see no good reason why Montana coal should not be used in preference to other coal. This is in line with the slogan, "Use Montana products." In addition to the above mentioned figures, there is a considerable amount of coal shipped into the state by railroads and smelters. The amount is uncertain as figures along this line are not available.

*Labor Conditions.*

Early in the year, a renewal of the contract for three years was entered into between the coal operators of Montana and the Miners' Union. As a result of this, there was no suspension of work in the spring such as we had a few years ago, which is another testimonial in favor of collective bargaining.

*First Aid and Rescue Work.*

It gives the writer a good deal of pleasure to be able to report that there has been quite an improvement along this line the last year. During the year, our larger mines were favored by a visit from one



of the United States rescue cars, and must good work was accomplished at Red Lodge, Stockett, and Roundup. Many cases of the practical value of first aid have been brought to the attention of the writer, but it is the opinion of many that the greatest value of such work lies in the fact that it brings prominently before the minds of the workmen, the whole subject of accidents and their prevention. It naturally follows that the thought of prevention is better than cure. It will cause the average workman to be more careful in safeguarding himself in his daily employment.

The Northwestern Improvement Company of Red Lodge and the Cottonwood Coal Company of Stockett are to be especially commended for securing the most modern rescue apparatus the market affords and for the great assistance they gave to the U. S. car crew in training their workmen in the intelligent use of the same. In times of mine fires or mine explosions, the use of such apparatus becomes at once of prime importance. When such accidents do occur, the saving of human life and property is very apparent. Thus companies find that such equipment and training pays from a monetary standpoint. The big thing is the saving of human life, which, after all, is the important thing. It is to be hoped that other coal companies follow the example set by the companies above mentioned in securing rescue equipment.

#### *Fatal Accidents*

The fatal accidents this year were twelve as compared with sixteen of the last year. This is a smaller number of accidents, but when we consider the much smaller number of men employed and the smaller production of coal, the per cent of accidents per thousand remains about the same as last year. Again we have to report, after analyzing these fatal accidents, that many of them were of a preventable nature and could have been avoided by the use of greater care.

The world is frequently horrified by reports of large losses of life in the coal mines by dust and gas explosions and yet, after all, we must realize that only a comparatively small percentage (12%) of the total number of lives lost in the coal mines of the nation occur from such tragedies. Most of the accidents occur from falls of rock, slate or coal and from runaway cars, etc. To prevent and lessen these accidents, workmen must at all times consider that safety first ought to, and must be, a prime consideration. I have yet to meet a mine official who wants to get out coal at the excessive cost of human life.

To further prevent the loss of life and property, the U. S. Coal Mine Inspectors at their national meeting, May 14th, 15th and 16th, made the following demands:

1. Electric cap lamps in all mines.
2. Flame safety lamps, where necessary.
3. Searching of all miners for liquors, pipes, cigars, cigarettes, etc.
4. Exclusive use of permissible explosives.
5. Shotfirers to fire all shots electrically.
6. Detonators to be handled exclusively by shotfirers.
7. Depth of no solid shot shall exceed 4 feet.
8. Haulageways and aircourses shall be rockdusted unless moisture content is raised to 30 per cent.
9. Rockdust barriers shall be installed at mouths of aircourses and entries.
10. Cutter bars must be sprayed.
11. Superintendents must be held equally responsible with foreman for any accidents that may occur.

I would earnestly recommend that these demands be carefully considered by the officials of coal mines in Montana as well as by the miners, to the end that some of these recommendations be adopted and that accidents may thereby be decreased.

#### Examinations.

Owing to the fact that the last legislative assembly failed to make the necessary appropriation, the Board of Coal Mine Examiners was not able to hold examinations this year. Notwithstanding this, there are a number of men in the state who are holding certificates of competency and are not filling positions, and I would again call the attention of operating coal companies to this fact and that it is not necessary for them to ask permits for other men while these men remain unemployed as mine foremen or fire bosses.

The following are the number of men employed in and around the coal mines of Montana and the tons of coal produced by years, according to figures compiled by the coal mine inspectors since the establishment of the department in 1901.

Years	Men Employed	Production in tons	Value
1901 to 1910 inc.	2,777 (Average)	18,697,641	Not given
1911	3,776	2,913,406	Not given
1912	3,598	3,142,799	Not given
1913	3,768	3,665,712	\$ 5,611,079
1914	3,660	2,938,671	4,714,023
1915	3,399	2,967,054	4,285,146
1916	3,824	3,688,307	5,899,353
1917	3,987 (8 months)	2,903,926	5,180,801
1918	4,736	4,514,414	9,525,386
1919	4,434	4,381,840	9,717,806
1920	4,108	3,755,195	10,393,908
1921	4,300	3,392,031	9,365,230
1922	4,431	2,818,654	8,659,192
1923	4,097	3,140,837	9,903,625
1924	3,035	2,988,779	8,172,150

#### SUMMARY

Mines reporting	60
Machine men employed	161
Loaders employed	735
Miners employed	1,208
Inside day men employed	444
Outside day men employed	514
Total number of men employed	3,444
Total number of tons of coal produced	2,988,779
Value at mines	\$8,172,150.55
Tons of coal produced per life lost	249,065
No. of men employed per fatal accident	287
No. killed per thousand men employed	3.48
Number of kegs of powder used	60,741
Pounds of dynamite used	7,755
Tons of coal mined by machines	1,385,310
Tons of coal mined by hand	1,603,469
Per cent of coal mined by hand	53.6%
Per cent of coal mined by machine	46.4%
Number of lives lost	12
Average days worked during year	156

All of the large mines reported but, as usual, many of the smaller mines did not. Notwithstanding the fact that notices were sent to all mines, I have been obliged to estimate the production, number of days worked, etc., in the cases of those who did not report, from data secured on my regular inspections.

In conclusion, I desire to thank the Chairman of the Industrial Accident Board, the Secretary of the same body, the Clerk of the Bureau of Safety, and all others who have in any way helped to carry forward the work of this department.

Respectfully submitted,

(Signed) GEO. N. GRIFFIN

State Coal Mine Inspector.

## QUARTZ MINE INSPECTOR'S REPORT

The general matter contained in the annual report of the State Quartz Mine Inspector, to the Industrial Accident Board, is incorporated herein and follows. More detailed matter contained in his report is on file with the Board.

September 20, 1924.

State Industrial Accident Board,  
Helena, Montana.

Gentlemen :

In compliance with the request of your Chairman, Hon. Jerome G. Locke, I am submitting herewith a brief summary of my work having reference to the inspection of quartz mining properties for the fiscal year beginning July 1st, 1923, and ending June 30th, 1924.

I am not unmindful of the instructions given me by your Chairman, for reasons of economy, limiting the space allotted me in the compilation of my report, and I shall endeavor to follow out these instructions without the sacrifice of any important details relative to my official duties.

*Mining Conditions Generally.*

Metal mining, as one of Montana's chief and most important industries, is passing through what many mining men term a period of depression, but it cannot be gainsaid that at the present time everything seems to indicate promising prospects for renewed future activities in the entire field of mining.

During the past year, the principal producers, outside of the Butte district, were centered in and around Neihart, Rimini, Basin, Gardiner and Philipsburg, all of which districts were encouragingly active. In many scattered and remote mining districts, small operators and leasers struggled along with moderate success, although many were compelled to discontinue operations and development work on properties of acknowledged merit, which at no distant day may be heralded as among the state's most productive mines. Unsettled conditions prevailing throughout continental Europe, abetted by the timidity of capital seeking mining investments in our own country, have conspired to depress the metal market and render futile all efforts of progressiveness in the mining industry. The effectiveness of the reparations plan, as outlined by Dawes and his committee of efficient financial experts, will, no doubt, inure to the favorable benefit of the various mining sections of Montana in the very near future, stimulate production, and tend to produce a rise in the prices of copper, lead, zinc and silver in markets both here and abroad.

INVESTIGATIONS, INSPECTIONS, ETC.

Number of serious accidents inquired into.....	32
Number of fatal accidents thoroughly investigated.....	44
Number of Coroner's inquests attended officially.....	33
Number of properties, consisting of mines, mills and smelters, fully inspected on one or more occasions.....	120

At the instance and request of employees, and for the purpose of ascertaining the justness of grievances to which my attention had been called, I revisited a number of the properties in question, resulting in a betterment of the condition complained of, to the satisfaction of both the employer and employees.



**FATAL ACCIDENTS AND HOW OCCURRING**  
**For the Fiscal Year ending June 30, 1924**

Electrocution, underground.....	1
Electrocution, surface.....	2
Falling ground.....	11
In act of blasting.....	4
Picking into missed holes.....	2
Drilling.....	2
Overturning car of rock on cage.....	1
Struck by descending skip on surface (1-a Mine Manager).....	2
Fall from roof of concentrator.....	1
Arm caught in ventilator fan.....	1
Overcome by gas (Verdict of Coroner's Jury).....	1
Fall from ladder.....	1
Crushed between car and post.....	1
Run over by ore cars (underground).....	1
Run over by ore cars (surface).....	1
Jammed between motor and timber.....	1
Falling down chutes.....	2
Heart failure (underground) (Coroner's Verdict).....	1
Washed into sump by water and fine dirt from skip-pocket.....	1
Falling to floor, striking head on cement coping.....	1
Sy Steel thrown down man-way.....	1
Overcome by exhaust fumes of a gasoline compressor.....	1
Falling through skylight of concentrator building.....	1
Jammed by motor jumping track.....	1
Fall from top of compressor room.....	1
Pulling car off cage, getting caught between same and post.....	1
<b>Total .....</b>	<b>44</b>

The above tabulation of accidents compares in numbers with that of the fiscal year ending June 30th, 1923, with the exception of the fatalities occurring from falling ground, which are eight less than the year previous.

Of the above mentioned fatalities, thirty-four (34) occurred in the Butte district, six (6) in the Anaconda district, two (2) in the vicinity of Virginia City and one (1) near Homestake.

Eliminating accidents caused by falling ground, by the nature of the others, it is but natural to presume that the majority of them resulted from sheer negligence or thoughtlessness on the part of the unfortunate victims. The same cannot be said as to accidents from falling ground, since oftentimes the judgment of the most experienced miners miscarries, resulting in loss of life and limb. However, some of the above enumerated accidents occurred in stopes fully timbered, leaving no doubt as to the possibility of their being averted.

The largest mining corporation doing business in Montana, (The Anaconda Copper Mining Company) maintains a safety inspection system, based primarily on the theory that it is just as much the duty of a mine foreman to prevent accidents as it is to get cheap costs, and the company tries to assist the foreman in accident prevention by furnishing a competent safety inspector to each of them, whose duty it is to watch out for such things as might cause accidents and which the shift boss or foreman might overlook.

This system has been productive of good results, although conditions about their mines since the system was started in 1920 have been so irregular that the company has been quite unable to make fair and adequate comparison.

The following is a comparative statement of the number of accidents and the accident rates of the above mentioned company per 10,000 shifts for the year ending June 30th, 1923, and for the year ending June 30th, 1924, to-wit:

# NINTH ANNUAL REPORT

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Year Ending June 30th, 1923		
Shifts	Lost Time Accidents	Rate per 10,000 shifts
2,070,554	1,748	8,442
Year Ending June 30th, 1924		
2,213,964	1,921	8,676

There is noticeable a slight increase in both the Lost Time Accidents and in the rate per 10,000 shifts, which is ascribed principally to the influx of men into the mines, who have had little or no previous mining experience.

## SAFETY ORDERS GIVEN AND RECOMMENDATIONS MADE

Grizzlies over chutes.....	Many
Close timbering and filling.....	8
Guard rails or gates around chutes and shafts.....	16
Orders against riding on loaded cages or skips.....	9
Signs to be used as guides to escapes or exits.....	18
Guards to enclose machinery, gears, belts, etc.....	12
Gates on cages.....	6
Safer depositories for explosives.....	4
Manway and shaft landings.....	14
Discontinuance of, or making safe, high voltage electric wires under ground .....	4
Proper securing and barring down ground.....	Many

I have encountered very little difficulty in securing the co-operation of the various managements, or those working under them, in having the above orders and recommendations concurred in, and, as previously stated, have found when making my report to your board that the willingness displayed by operating companies in assisting my efforts to safeguard their employees has been met with a worthy approval, except in a very few instances.

The following tabulation for the mineral output of Montana, while credited to the calendar year 1923 rather than our fiscal year, covers and in all probability will meet the requirements you made of me.

## INDUSTRIAL ACCIDENT BOARD

MINE PRODUCTION OF GOLD, SILVER, COPPER, LEAD, AND ZINC  
IN MONTANA IN 1923, BY COUNTIES.*From the Department of the Interior by C. N. Gerry, Geological Survey.*

COUNTY	Number of pro- ducers	Ore treated Short tons	Gold (a) Fine ounces	Silver (a) Fine ounces	Copper Pounds	Lead Pounds	Recoverable Zinc Pounds	Total Value
Beaverhead	17	26,220	366.34	10,877	151,607	2,211,796		\$242,804
Broadwater	25	11,486	968.42	18,880	15,349	642,101	14,944	83,720
Cascade	17	110,939	539.72	555,357	582,918	1,824,454	5,075	680,296
Deer Lodge	9	37,561	2,707.84	222,527	606	6,859		241,217
Fergus	4	121	133.27	1,232				3,765
Granite	45	7,770	1,406.12	286,782	176,499	158,677	17,595	302,477
Jefferson	23	46,267	6,964.35	107,921	39,919	520,422	328,712	297,111
Judith Basin	5	16,973	223.93	88,147	4,430	1,691,611		195,974
Lewis & Clark	45	33,195	15,528.52	49,791	56,055	743,540		432,120
Lincoln	4	44,982	468.95	59,845	6,942	2,264,016	69,560	222,999
Madison	5	5,658	3,209.37	18,352	13,258	210,949		99,968
Meagher	3	117	32.62	18,776	12,776	9,217		4,293
Mineral	13	64	244.78	967	2,300	11,595		7,003
Missoula	6	468	285.07	609	938	16,382	11,893	8,483
Park	3	41,546	8,051.97	4,938	182	31,829		172,732
Phillips	2	95,165	12,538.85	33,661				286,803
Powell	21	583	846.61	11,662	802	85,680		33,179
Ravalli	4	4	45.38	7				944
Sanders	6	72	3.77	1,754	17,622	15,045		5,160
Silver Bow	62	-5,261,344	30,359.42	11,837,475	223,043,071	25,501,740	141,012,613	54,495,627
Toole	2		14.13	2				294
Total, 1923	382	5,743,535	85,079.43	13,380,862	224,125,264	35,945,823	141,460,352	(b) 57,812,970
Total, 1922	393	4,389,878	80,145.62	12,468,151	165,754,442	29,767,479	119,069,818	(c) 44,925,949

(a) Includes placer production. (b) Average value of metals: Gold, \$20.671835 per ounce; silver, \$0.82 per ounce; copper, \$0.147 per pound; lead, \$0.07 per pound; zinc, \$0.068 per pound. (c) Average value of metals: Gold, \$20.671835 per ounce; silver, \$0.100 per ounce; copper, \$0.135 per pound; lead, \$0.055 per pound; zinc, \$0.057 per pound.

As in former years, I have been deluged at times with communications from people in various sections of the country making inquiries relative to mining properties and kindred matters, which they felt entitled to know, and I have extended to all of them every consideration in recognition of their inquiries, although in some instances I was not in a position to impart the information sought.

In concluding this brief report of my activities, I deem it my duty and privilege to extend my thanks and appreciation to your honorable board for the excellent treatment received at your hands, as alike for the co-operation and advice of your chairman, Mr. Jerome G. Locke, and of the departmental heads, Mr. W. B. McLaughlin and Mr. Duncan McRae. I greatly appreciate their kindly and willing assistance and courteous treatment during the fiscal year just closed.

Respectfully submitted,

(Signed) WM. MAXWELL,  
State Quartz Mine Inspector.

### INDUSTRIAL REHABILITATION.

The Sixty-sixth Federal Congress passed "An Act to provide for the promotion of vocational rehabilitation of persons disabled in industry or otherwise and their return to civil employment." The bill was approved by the President on June 2nd, 1920. The Act made appropriation of \$750,000.00 for the fiscal year ending June 30, 1921, and one million dollars for each of the three following years, under the provision that the sum should be allotted to the states on basis of population and with the added proviso that no state should receive less than \$5,000.00 in any fiscal year.

The money was made available under condition that for each dollar of Federal money expended, at least an equal amount of state money should be expended. The money can only be used within limits that have been laid down by the Federal Board of Vocational Education and on cases which are approved by such Board. The law also provides that in order to secure the benefits of the appropriations, the state shall, "through the legislative authority thereof: (1) accept the provisions of this Act; (2) empower and direct the board designated or created as the State Board for Vocational Education to co-operate with Federal Board for Vocational Education in the administration of the provisions of the Act; (3) provide that a plan of co-operation be formed between the Industrial Accident Board and the State Board of Vocational Education; (4) provide for the supervision and support of the courses of vocational rehabilitation to be provided by the State Board in carrying out the provisions of this Act; and (5) appoint as custodian for said appropriations its state treasurer."

The Seventeenth Legislative Assembly, by passage of an act which was approved on March 5th, 1921, accepted the benefit of the Federal Law and made application for its share of the appropriation made thereunder. The Legislative Act designated the State Board for Vocational Education to co-operate with the Federal Board for Vocational Education in the administration of the work, and provided further that the Industrial Accident Board should co-operate with the State Board in the formulation of a plan of activity. The Legislature appropriated \$10,000.00 for each of the fiscal years ending June 30, 1922, and 1923, for the work. Obedient to the Legislative Act, the work was organized and started at the beginning of the fiscal year 1921-1922. For each of the fiscal years ending June 30th, 1924 and 1925, the Eighteenth Legislative Assembly appropriated \$13,500.00 to carry on the state's share of the work.



*Transfer of Bureau.*

For the first few months, the work of industrial rehabilitation was under the direct supervision of the State Board of Vocational Education and its personnel was quartered in the office of the Superintendent of Public Instruction. A few months' experience demonstrated that the work of industrial rehabilitation cannot be satisfactorily administered in connection with the work of vocational education. The work is not altogether educational in character and cannot be suitably carried on as one of the activities of the Department of Education. By consent of the State Superintendent of Public Instruction, the Board of Vocational Education and the Industrial Accident Board, the activity was moved over to the Industrial Accident Board and became one of the bureaus of this department. Now, while the work of industrial rehabilitation is nominally under the jurisdiction of the Board of Vocational Education, it is, in reality, under the jurisdiction of the Industrial Accident Board. The experience of nearly three years in handling the work has demonstrated the wisdom of the transfer. A large percentage of the cases for rehabilitation grow out of industrial accidents. When the administration of rehabilitation and compensation is carried on in the same department, it is possible to make one activity co-operate with the other to the advantage of both. Likewise, it is much easier for those concerned with rehabilitation work to find and classify the persons subject to the provisions of the act where such work can be carried on in conjunction with compensation administration, so that the records of one activity are available to the other.

*Rehabilitation Field.*

Industrial rehabilitation is predicated upon the theory that it is better for the state to take cripples and those who have been permanently impaired in life and train them for some vocation through which they will be enabled to earn their own livelihood than to permit these unfortunates to drift with the tide and become charges upon charity. The work will be beneficial to society as a whole and economically sound, if the cost of training and placing those who have been disabled is less than the burden society would bear if these were not trained and fitted to again engage in gainful occupation. No figures are available and on one can say with certainty what it costs the public in Montana to care for those who, through accident or otherwise, have been so crippled that they are unable to care for themselves. As yet, this kind of governmental activity is still too new to say with certainty just how much of economic good will ultimately come from it. The Board has taken the view that if the work is to be proven economically sound and a department built up that will attain an actual beneficial result commensurate with the cost, it must proceed slowly and carefully. Experience has already demonstrated that many of those who are vocationally handicapped cannot be successfully trained to become entirely self supporting. In order that funds and energy be not wasted, the Board has continually insisted that only those cases be accepted for training that seem to offer better than an even chance for satisfactory results, and that the time and money of the Bureau of Industrial Rehabilitation be concentrated on a comparatively few cases that seem to offer a real prospect of successful handling. The work of the Bureau is under the direct charge of Mr. Lief Fredericks as Civilian Agent.

*Nature of the Work.*

The work, as so far carried on, consists quite as much in giving moral help and advice to unfortunates as it does in extending financial aid. The policy pursued in the business of industrial rehabilitation is

quite the reverse of that pursued by the Federal government in army rehabilitation. It is only a fractional part as costly. In army rehabilitation, applicants for training are given sufficient financial help so that they depend almost wholly on the government for support and for education. In industrial rehabilitation, the applicants must depend largely upon themselves for financial support and are given only sufficient help to permit them to obtain training so that they may make a decent livelihood. In army rehabilitation, applicants are sent to school for courses of one, two, three or four years almost wholly at Federal expense, while in industrial rehabilitation only sufficient help is extended to permit the applicant to get the necessary training, provided he uses every resource at his own command.

In some cases the funds available for the work are used to pay tuition, procure text books or pay for private instruction. They are not used to defray the living cost of the trainee. In a great many cases no money is spent on schooling at all. For instance, a man who has been engaged in common labor all his life suffers an injury to his lower extremities, which makes it impossible for him to walk or get around, except in a wheel chair or with the aid of crutches. He probably has little education and is not fitted to perform any work other than common labor. The rehabilitation agent goes over his case carefully, delves into his family history, inquires about his past occupations, consults former employers, gains from the man himself some idea of his inclination for work and finally determines that the man can be fitted to engage in the trade of shoemaking, at which occupation he is not required to walk and which requires no education and but little mechanical skill. Having determined upon this and persuaded the applicant to take up this line of work, the rehabilitation agent must then find a place where the unfortunate can procure the necessary training. He proceeds to search for some shoemaker's shop where the applicant can be apprenticed for a number of months. He learns how much it will cost the applicant to live during his period of apprenticeship and then exercises his resources to provide sufficient revenue for this purpose, using only so much of the fund of the department as is absolutely necessary.

#### *Work Accomplished.*

The following tabulations give some idea of the accomplishment of the Bureau since its creation three years ago.

#### *Cases Reported and Applications Received*

	Prior to 6-30-23	Fiscal year 7-1-23 to 6-30-24	Total
Cases reported and application for training received.....	225	121	346
Cases reported but person refused to apply for training .....	116	86	202
Total cases reported.....	341	207	548

#### *Disposition of Applicants*

	Prior to 6-30-23	Fiscal year 7-1-23 to 6-30-24	Total
Number cases rehabilitated.....	59	36	95
Number cases in training.....	64	18	46
Number cases rejected or closed.....	51	26	77
Number cases surveyed but not in training.....	31	69	100
Number cases where training has been interrupted.....	0	7	7
Number applications awaiting survey.....	20	1	21
Total applications received.....	225	121	346

*Cost of Work*

The following financial statement shows the money available for the work and the funds expended during the fiscal year ending June 30th, 1924. Financial statements for preceding years are in the 1923 report of the Board.

Federal funds available by allotment.....	\$ 5,213.96	
State funds available by appropriation.....	13,500.00	
Funds from private sources.....	1,633.00	
Total available.....	\$20,346.96	
Federal funds expended.....		\$ 5,205.21
State funds expended.....		12,296.22
Private contributions expended.....		1,633.00
Total expenditure.....		\$19,134.43
Federal funds returned.....		\$ 8.75
State funds returned.....		1,203.78
		<hr/> \$20,346.96

## LUMP SUM SETTLEMENTS.

The law gives the Board power to decree whether the compensation payments shall be made monthly or whether all the liability for payment shall be discharged by a lump sum settlement in cases where total liability for payment can be determined in advance. It was, undoubtedly, the purpose of the Legislature that payments should be made in a lump sum only when the best interests of the claimant can be served thereby. In accordance with such a theory, the Board has adhered to the policy of granting whole or partial lump sum settlements only in cases where the claimant has outstanding indebtedness which he is unable to otherwise pay, in cases where extra money is needed to provide schooling for children, in cases where the claimant resides in or desires to move to a foreign country, and, in exceptional cases, where the claimant can show that he can invest the money with safety and so that it will earn in excess of five per cent per annum interest. Lump payments are computed by a standard table.

## NEEDED CHANGES IN THE LAW.

The machinery provided by the Montana Compensation Act for the administration of the law and the settlement of cases thereunder is, on the whole, entirely satisfactory. It probably affords the basis for a system that is equal, if not superior, to that in any of the other states. At least, the Montana Industrial Accident Board has had less trouble and fewer appeals than has the board of any other state. It is, therefore, doubtful whether the mechanics of the Montana Act can be materially improved by amendment or change.

The benefits provided by the Montana Act are, however, not up to the standard in most of the other states. As a matter of fact, the cost to the employer is lower in Montana than in any of the other forty-two states having compensation laws. At the same time, the benefits paid to workmen are third from the bottom of the list from standpoint of liberality. The desirability of changes in the amount and time for medical benefit, length of the waiting period, percentage of wages payable, maximum compensation rate and inclusion of vocational disease have already been discussed to some extent in this report. Amendment of the Act to bring about these changes would result in increasing its liberality fifty or sixty per cent and bring its benefits in line with the average afforded by the Acts in other states.



A few other changes in the law appear to be desirable. None of these will have any material effect on the amount of benefit paid to workmen or upon the cost to the employer. They will, however, if brought about, make the Act much easier to administer and result in treatment that is more fair to all parties concerned than is sometimes possible under the present Act.

The present law provides no method for settlement of any kind of a permanent disability on the basis of percentage of disability. While literally hundreds of cases are now settled on the basis of percentage of disability, such settlements cannot be legally enforced by the Board nor can they be brought about at all except by compromise and agreement on the part of the parties affected. Sometimes it is difficult or even impossible to bring about compromise settlements, and, in such cases, the Board, for the sake of keeping within the law, must decree a settlement that is unfair either to the employee or to the employer.

In cases where specific indemnity is payable, as for amputation of a member, the present system does not provide any elasticity. There have been occasional cases where, due to delay in healing of the wound, the period for the payment of specific indemnity had passed before the injured employee had recovered from the temporary total disability due to the injury. It would appear that as a matter of fairness, compensation should be paid during the time the wound of dismemberment is healing, regardless of the length of time this may take and that thereafter the specific indemnity should be paid to cover the loss as a result of the amputation.

Under the present Act, major or minor dependents, that is, fathers, mothers, brothers and sisters, are paid compensation following death of a workman, at a rate based upon his wages, which is nearly always the maximum rate, if they are dependent "to any extent." There are a good many cases in which the amount of dependency has been from one to five or six dollars per week, where, due to such provision of the law, the dependent gets \$12.50 per week as a compensation benefit. This is unfair to the employer. The amount payable to dependents should be based on the amount of actual dependency within the maximum limitation of weekly payment.

Those sections of the law providing for the levying and collections of assessments on employers have never been entirely satisfactory from either an administrative or a business standpoint. In order to keep within the law, the Board is obliged to resort to a more or less complicated system of making assessments that never has been well understood by employers. This leads to almost endless explanation and some friction. Moreover, under the present system, it is a comparatively simple matter for new concerns to come under the Act after making a deposit that is inadequate, then run for three or four months without any additional payment and either go into bankruptcy, leave the state, or otherwise default on the balance due the Industrial Accident Fund. Under the present sections, the Board is practically powerless to prevent the accumulation of delinquent and dead accounts from this source, and it is continually obliged to resort to attachment and other legal methods of collection, in order to forestall considerable losses on premiums. The sections in question could be revised so as to preclude any of the trouble such as is described and without injustice to any employer.

The safety provisions of the Act are applicable to all places of hazardous employment in the state, other than mines. There does not seem to be any good reason why mines should be exempt from the same regulations for safety as obtain in other places of hazardous employment. The fees which the department can collect for the inspec-

tions made by the quartz and coal mine inspectors under its jurisdiction are also totally inadequate to pay the salaries and expense of these inspectors. The inspectors who examine boilers and hazardous plants, other than mines, are more than self supporting. That is, their earning is more than sufficient to cover their salaries and expense. There appears to be no good reason why the general taxpayers of the state should defray more than half of the cost of mine inspection.

Three or four minor changes in the wording of certain sections of the Act could well be made, to the end of clarifying some of its provisions.

The law pertaining to the inspection of boilers and the licensing of stationary engineers is, on the whole, a good law. It was, however, enacted about twenty-five years ago and there has been a considerable change in steam machinery and the practices of its operation since that time. In many instances it is now difficult to apply the law in the face of modern conditions. It should be reenacted to incorporate such changes as have become necessary and it should particularly provide that the inspectors of boilers and hazardous plants be selected solely on the basis of qualification rather than under political pressure.

The coal mining code has many desirable features. It has, however, been amended and changed a number of times until it has become more or less a patchwork of conflicting provisions. It could well be changed and reenacted so as to eliminate all conflicts and so as to harmonize with the general safety laws of the state. The quartz mining code is in effect no code at all. It should be replaced by a new code designed to afford actual protection to employees in the metalliferous mines and designed as well to harmonize with the general safety laws.

During the war, the legislature enacted what is known as the "Alien and Illiterate Employees Registration Act," providing that employing companies make quarterly registration with the Industrial Accident Board of all alien and illiterate employees. So far as the Board can see, this Act now serves no good purpose. The reports which are sent in quarterly by the larger companies are merely filed away and never consulted. The work of preparing these reports must cost many hundreds of dollars. The entire Act should be repealed.

#### COMPARATIVE RECORD OF CONDITION OF INDUSTRIAL ACCIDENT BOARD.

During recent months, the Board has frequently been requested to furnish information relative to the status of business before the department. Many letters in response to such inquiries have been written. Those who are interested in the work of the department are entitled to know of its actual condition and accomplishments. There appears to be no yardstick by which this can be measured other than by comparison. The following tabulation is a comparison of the work done and the status of finances for the three years under the present administration, as contrasted with the last three years under the preceding administration.

	July 1, 1918 to June 30, 1921 Former Administration	July 1, 1921 to June 30, 1924 Present Administration	Increase or Decrease + or —
Total accident cases handled and decisions made awarding or denying compensation.....	14,246	14,285	39+
Other decisions than compensation awards .....	No record	4,680	No record
Medical bills handled.....	1,521	2,188	667+
Number employers under Act end of period .....	2,520	2,811	291+
Total compensation awarded.....	\$1,424,967.12*	\$1,424,774.13	\$192.99—
Steam boilers inspected.....	7,461	8,698	1,219+
Mines and hazardous plants inspected .....	396	1,730	1,334+
Industrial Rehabilitation cases handled .....	None	346	346+
<b>FINANCES</b>			
Total cost operating department.....	\$ 176,792.00	\$ 157,982.94	\$18,809.06—
Earnings from inspection fees.....	83,417.57	83,987.09	569.52+
Balance in Industrial Accident Fund at end of period.....	382,816.61	436,202.14	53,385.53+
Losses on investments.....	None**	None	(See Note)**
Interest and discount earned and collected on investments.....	22,972.68	59,306.10	36,333.42+
Losses in premium collection.....	2,371.78	1,544.42	827.36—
Annual salary of chairman.....	6,000.00	5,000.00	1,000.00—

\*Includes compensation awards for fatal cases resulting from fire in Granite Mountain and Speculator mines in Butte on June 8, 1917, in which 163 men lost their lives.

\*\*One warrant, book value \$1,030.63, purchased, and one warrant, book value \$980.00, taken in payment of premium assessment from Columbus Irrigation District by former administration, are carried on books as assets. These have no present value and should be written off as a loss. All interest that is due on investments has been collected, except the interest on the two warrants purchased from Columbus Irrigation District in 1920.

In three years, the present administration has handled and made decision in a total of about twenty thousand cases involving compensation settlements and other matters, and has awarded approximately one and one-half million dollars. Each decision rendered has been subject to appeal and review by the courts. In only one case has the Board been reversed, and this case, decided by the District Court, is now before the Supreme Court for final decision.

Helena, Montana,

October 8, 1924.

We hereby certify that the foregoing figures and statements are taken from the books in the Industrial Accident Board, and that they are correct to the best of our knowledge and belief.

THOS. C. PATRICK,  
Chief Accountant.

W. B. McLAUGHLIN,  
Secretary.



## SAFETY FIRST.

Lock up and test your safety lamp;  
Examine well for fire damp;  
Be careful how your shots you tamp—

“Safety First.”

Look out for the electric juice;  
See that the timbers are not loose;  
And Oh, beware the mule's caboose—

“Safety First.”

Don't open powder with a pick,  
It might explode, then death comes quick;  
Don't ever do this foolish trick—

“Safety First.”

Don't ever let your fancies roam;  
Don't ever be “nobody home;”  
But keep a level headed dome—

“Safety First.”

Be wise, beware of bootleg booze;  
And keep the car wheels off your shoes;  
And don't get stingy with the fuse—

“Safety First.”

Be sure the risky roof you test;  
Be careful where you sit to rest,  
At rib or prop is always best—

“Safety First.”

Kick up a row about the dust,  
Because it can be wet, and must,  
Or you may hear explosions bust—

“Safety First.”

If there is gas, it's up to you,  
To not light up and smoke a few,  
Because the mine may light up too—

“Safety First.”

Best study up that first aid fad,  
Because if you don't you'll wish you had,  
Perhaps some day you'll need it bad—

“Safety First.”







